

## ABSTRACT OF THE DISCLOSURE

A receiver receives a multiplex broadcasting wave of a terrestrial wave and a satellite wave and executes AGC. As 5 for the terrestrial wave, only a frequency band of the terrestrial wave is extracted by a filter for the terrestrial wave, and the AGC on the terrestrial wave side is executed through an AGC loop for the terrestrial wave. As for the satellite wave, the frequency band including the terrestrial 10 wave and the satellite wave is extracted by the filter for the satellite wave, and the AGC is executed based on the signal. As a result, the AGC on the satellite wave side is affected by a receiving condition variation of the terrestrial wave. By a frequency-analysis of the terrestrial wave signal, the 15 receiving condition of the terrestrial wave is analyzed. According to the analyzed result, an AGC adjusting quantity on the satellite wave side is determined and the AGC on the satellite wave side is adjusted by the adjusting quantity. Thereby, the effects on the satellite wave side by the receiving 20 condition of the terrestrial wave signal may be reduced or eliminated, and appropriate AGC can be executed to the satellite wave.